

**Notice of Allowability**

Application No.

09/826,620

Examiner

Heather R Long

Applicant(s)

DIELHOF ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05 April 2001.
2. ☒ The allowed claim(s) is/are 1-7.
3. ☒ The drawings filed on 05 April 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 11192004.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 11192004.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### **DETAILED ACTION**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Russell Gross on November 19, 2004.

The application has been amended as follows:

Page 1, line 1: insert the heading --Background--.

Page 2, line 10: insert the heading --Brief Description of the Drawings--.

Page 2, line 22: insert the heading --Detailed Description--.

2. The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Fig. 3, insert the reference character --PN-- to describe the box labeled "Passive network" (see attached drawing). In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

### ***Allowable Subject Matter***

3. Claims 1-7 are allowed.
4. The following is an examiner's statement of reasons for allowance: Prior art fails to teach or fairly suggest a front-end device for a CCD camera, in combination with all

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the elements claimed, comprising a sampling circuit comprising a variable capacitor which value depends on the input frequency of the input signal and aperture time of the sample pulse.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Ying et al. (U.S. Patent Application Publication 2002/0033891) discloses an Image processing apparatus for a charge coupled device including analog front-end circuitry having optical black and offset correction, whereby the offset and optical black correction is programmable.
- b. Johnson et al. (U.S. Patent Application Publication 2002/0176009) discloses an image processor system for a charge coupled device includes a correlated double sample and variable gain (CDSVGA) circuit for receiving data from a CCD system and an automatic gain control circuit which first controls gain by adjusting the CCD system and then for yet a higher gain level makes gain adjustments in the CDSVGA circuit and a digital gain circuit to produce a combined target gain level.

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c. Nakamura (U.S. Patent 6,441,686) discloses a method and apparatus for reducing offset errors in a variable gain circuit (Fig. 1-4).

d. Johnson et al. (U.S. Patent 6,686,957) discloses a processing system for a charge coupled device (CCD) that includes a correlated double sample (CDS) circuit for receiving data from an imager, a variable gain amplifier (VGA) having amplifiers of selectable current level to enable reduced data resolution in a preview display, a low power mode analog-to-digital converter (ADC) having a selectable narrow bit-width output and coupled to the VGA circuit, and a gain circuit coupled to the ADC.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather R Long whose telephone number is 703-305-0681. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Heather R Long  
Examiner  
Art Unit 2615

HRL  
November 19, 2004

  
TUAN HO  
PRIMARY EXAMINER